

What is claimed is:

1. An image projecting apparatus, comprising:

a light source configured to irradiate a plurality of monochromatic lights of different wavelengths;

a first light transmitting unit comprising a plurality of optical fibers through which the respective monochromatic lights pass;

a first optical switch unit comprising a plurality of optical switches in a square matrix arrangement operated to selectively reflect the monochromatic lights;

a second optical switch unit comprising a plurality of optical switches arranged in a single file configured to one of reflect and transmit the monochromatic lights reflected from said first optical switch unit, the plurality of optical switches comprising a first group of optical switches arranged in odd-numbered rows and a second group of optical switches arranged in even-numbered rows;

a square beam generator configured to transform the monochromatic lights reflected from said second optical switch unit into square beams of a predetermined aspect ratio;

a panel unit configured to receive the square beams of the monochromatic lights to realize the received square beams in the form of a monochromatic color stripe of a predetermined size; and

wherein either the first or the second group of said second optical switch unit periodically reflects the monochromatic lights.

2. The image projecting apparatus of claim 1, wherein the optical switches of the pluralities of optical switches of said first and said second optical switch units are moved between a first position to reflect the monochromatic lights and a second position to pass the monochromatic lights.

3. The image projecting apparatus of claim 2, wherein at any particular instant only one optical switch in each column and each row of said first optical switch unit is positioned in the first position.

4. The image projecting apparatus of claim 2, wherein at any particular instant, only one of the first group and the second group of said second optical switch unit is positioned in the first position.

5. The image projecting apparatus of claim 1, wherein said first optical switch unit comprises optical switches in a 3×3 square matrix

arrangement, while said second optical switch unit comprises optical switches in a 6×1 matrix arrangement.

6. The image projecting apparatus of claim 1, further comprising a second light transmitting unit comprising a plurality of optical fibers configured to transmit the monochromatic lights transmitted from said second optical switch unit to said square beam generator.

7. The image projecting apparatus of claim 1, wherein said panel unit includes a digital micromirror lens device configured to transform the plurality of monochromatic color stripes and to reflect the monochromatic color stripes to said projecting lens unit.